Remarks

Claims 1-26 are at issue. Claims 1-26 stand rejected under 35 USC 112 first paragraph as based on a disclosure which is not enabling. Claims 1-14 & 23-26 stand rejected under 35 USC 102(b) based upon public use of the commercial product FACEPLATE. Claims 15-20 stand rejected under 35 USC 102 (a,b,e) as anticipated by Visual Object-Oriented Programming (VOOP). Claims 21-22 stand rejected under 35 USC 103(a) as being unpatentable over VOOP in view of runtime support of a an Object Oriented Language such as Unix.

35 USC 112 First Paragraph

The applicants respectfully submit that the references supplied by the Examiner show how dynamic memory may be applied in computer applications. The rejection should now be withdrawn.

Requirement for Information – 37 USC 1.105

Enclosed is a copy of the 'User's Guide" for the commercial product FACEPLATE. The applicant's respectfully submit that the commercial product FACEPLATE is a drag-and-drop simulation front panel builder. FACEPLATE is a simulation builder. FACEPLATE does not allow the user to convert their simulation graphics into deployable code in embedded systems, as described and claimed in the present application.

Drawings

With respect to "selecting dynamic memory" the applicants respectfully disagree that this is not shown in the figures. FIG. 3, element 42 shows dynamic memory may be selected. The associated text, page 6, lines 18-21 states the translator has a number of options including "allowing dynamic memory allocation 42". Clearly this shows "selecting dynamic memory". In addition, the phrase "selecting dynamic

memory" is not used in the claims. The claims do state "determining if a dynamic memory allocation is selected".

With respect to "translator includes an option of translating a graphical objects control logic" the applicants respectfully disagree that this is not shown in the figures. FIG. 3, element 40 shows graphical objects control logic coupled to the translator 36. The associated text, page 6, lines 18-21 state the translator has a number of options including "translating a graphical objects control logic 40". Clearly this shows "translator includes an option of translating a graphical objects control logic".

With respect to "selecting size for dynamic allocation" the applicants respectfully disagree that this is not shown in the figures. FIG. 3, element 44 shows data sizing. The associated text, page 6, lines 18-21 state the translator has a number of options including "sizing a data structure 44". Clearly this shows "selecting size for dynamic allocation". In addition, the phrase "selecting size for dynamic allocation" is not used in the claims. The claims do state "selecting a memory allocation size".

With respect to "identifying a target processor", FIG. 1 has been modified to show a target processor coupled to the complier 16. The supporting text is shown on Page 8, lines 3-4, which states "the system identifies a target processor for a complier".

The rejections based on the drawing should be withdrawn.

Overview

The applicants respectfully believe that the Examiner is missing the key points related to this patent application. The present application is directed to creating a graphical interface, such as those found in airplanes and automobiles. The present application explains how a system can be created which allows the engineers and designers to use the simulation graphics they used to prototype the graphical interface to automatically create runtime code for their system. All previous systems for creating graphical interfaces for non-general purpose computers (embedded systems) required two steps:1) simulate the graphical interface; and 2) write executable code for the production versions of the graphical interface. These solutions resulted in differences between the simulation and the production interface and a significant amount of additional work trying to recreate the simulated interface in the production environment.

VOOP is a programming language that replaces written commands with visual commands in programming. VOOP is not directed to the problem of simulating graphical interfaces in embedded systems, such as aircraft displays. It might be possible to use a version of VOOP to create the system that is the subject of this application instead of a language such as C++, but this does not show or render obvious that present application which describes a system that allows the user to convert their simulated graphical interface into an executable graphical interface for the specific embedded system. VOOP is more analogous to C++ than the present application.

Specific Claim Rejections

Claims 1-14 & 23-26 stand rejected based on FACEPLATE. Claim 1 requires a compiler. FACEPLATE does not have a complier. FACEPLATE graphical code can only be run with a simulator program. The FACEPLATE code is only interpretive and is not compiled into a stand alone executable that can be run in an embedded system. In addition, FACEPLATE does not have a translator since it does not covert graphical objects into a high-level computer language code. Claim 1 is allowable.

Claims 2-4 are allowable as being dependent upon an allowable base claim.

Claims 5-9 are related to the translator. FACEPLATE does not have a translator.

Claim 10 requires translating the graphical display into a high level computer language code and compiling the code. FACEPLATE does not have a complier. FACEPLATE graphical code can only be run with a simulator program. The FACEPLATE code is only interpretive and is not compiled into a stand alone executable that can be run in an embedded system. In addition, FACEPLATE does not have a translator since it does not covert graphical objects into a high-level computer language code. Claim 10 is allowable.

Claim 11 requires identifying a target processor. FACEPLATE does not require identifying a target processor since it is not designed to run on an embedded system. Claim 11 is allowable.

Claims 12 &13 cover various parts of the translation process. FACEPLATE does not translate into a high level computer language code. Claims 12 & 13 are allowable.

Claim 14 is allowable as being dependent upon an allowable base claim.

Claim 23 requires a code builder for translating array data into high level computer code. FACEPLATE does not create high level computer code. Claim 23 is allowable.

Claim 24 requires a data sizing function. Since FACEPLATE is an interpretive type program it does not require a data sizing function. Claim 24 is allowable.

Claim 25 is allowable as being dependent upon an allowable base claim.

Claim 26 requires a dynamic memory allocation choice. Since FACEPLATE is an interpretive type program it does not require a dynamic memory allocation choice. Claim 26 is allowable.

Claims 15-20 stand rejected based on VOOP. VOOP is a programming language and does not explain or render obvious how to create executable code for an embedded system from a graphical simulation. Claim 15 as amended makes it clear that the high level computer language code creates the graphical display formed in the graphics environment. VOOP does not create high level computer language code that creates the graphical display in the graphics environment. The graphic symbols in the graphics environment are analogous to command lines and are not intended as an end product. Claim 15 is allowable over the prior art.

Claims 16-17 are allowable as being dependent upon an allowable base claim.

Claims 18-22 requires a translator with various functions. There is no discussion of a translator designed to create high level computer code that creates a graphical display. Claims 18-22 are allowable.

Note that the Examiner has used Official Notice to reject some of the claims, the applicants traverse the Official Notice and demand that the Examiner find references to support his position.

Prompt reconsideration and allowance are respectfully requested.

Respectfully submitted,

(Batcha et al)

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I hereby certify that an Response is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner of Patents and Trademarks, Honorable Commissioner of Patents and Trademarks P.O. Box 1450, Alexandria, VA 22313-1450, on:

6/17/04
Date

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Signature (Dale Halling)